REMARKS/ARGUMENTS

In response to the Office Action mailed March 29, 2005, Applicants amend their application and request reconsideration. No claims are cancelled and new claims 6 and 7 are added so that claims 1-7 are now pending.

The Examiner renewed the provisional double-patenting rejection with respect to co-pending U.S. Patent Application No. 09/840,444 filed simultaneously with the present patent application. Applicants again respectfully traverses this double-patenting rejection for the reasons previously presented. However, solely for the purpose of advancing the prosecution of this patent application, upon the identification of allowable subject matter in either the present patent application or the co-pending patent application, an appropriate Terminal Disclaimer will be filed.

In an Office Action mailed September 23, 2005 in the co-pending patent application, the propriety of the publication incorporated by reference in that patent application and this patent application was questioned. An error may have been made, but the issue cannot be resolved in time for meeting the deadline for responding to the March 29, 2005 Office Action in this patent application. Upon further investigation, correction of this patent application may be necessary.

As previously described, the invention concerns a method of creating thermal functional designs of both textiles, i.e., fabrics, and articles of clothing using a computer simulation. In the foregoing Amendment, claim 1 is clarified without substantive change. One word is clarified in the middle of claim and a further description of the visual image modules is added at the end of clam 1. This addition is supported by the original disclosure, for example, in the passage from page 4, line 26 through page 5, line 1. Likewise, a similar clarification without change in scope is made to claim 2. New claims 6 and 7 are added. Claim 6 is based upon the disclosure of the patent application, particularly with respect to the flowchart of Figure 2 illustrating the claimed method and generally described at page 5 of the patent application. Claim 7 is derived from original claim 5.

The Examiner maintained the rejection of claims 1-5 pursuant to 35 USC 112, first paragraph, as not meeting either the written description requirement or the enablement

requirement of that statutory provision. Applicants again respectfully traverse these rejections.

The description of the patent application, while brief, clearly enables one of ordinary skill in the art of modeling human/textile interaction to make and/or use the invention. For example, the specification at page 4, lines 1-7, explains that databases representing thermal and physiological characteristics of a human body and thermal characteristics of textile materials, which are known in the art, are supplied to the computer. The specification also explains that advanced computing technologies developed on the basis of advanced mathematical modeling of the thermo-physiology of the human body and heat and moisture transfer of the clothing materials are incorporated by the computer to integrate and process information available from the databases and that computation mathematics using commercially available software packages may be used to match and compute information from thermal databases (see e.g., page 4, line 20-26 and page 5, lines 6-16). A thermal functional evaluation is provided that is compared with data from a Thermal Comfort Knowledge database and an output is provided to create and display a Comprehensive Visualization (see e.g., page 5, lines 15-21). Accordingly, one of ordinary skill in the art was certainly enabled to practice the claimed invention at the time of the filing of the present patent application, based on the present patent application and knowledge in the relevant arts. Therefore, the enablement rejection should be withdrawn

The specification clearly conveys to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. The specification clearly explains that the computational simulation of information from databases utilizes established computational mathematics. For example, the specification describes that the presently claimed invention uses "established computational mathematics" and "computational mathematics using commercially available [software] packages" to generate and display comprehensive visual images of suitable fabrics and articles of apparel (see e g., page 5, lines 11-15 and page 6, lines 20-27). One skilled in the relevant art would recognize that the inventors were utilizing established computational mathematics in order to provide computational simulation of information and therefore were in possession of the claimed invention. Accordingly the written description rejection should be withdrawn.

The Office Action, as best understood, at page 11, seems to suggest that, based upon the number of available computer models referred to, that there would be an undue burden on a person of ordinary skill in the art in attempting to practice the claimed invention. In other

words, that person would have so much information that he would have to winnow the list to practice the invention. That kind of burden is the opposite of an absence of adequate information to practice the invention, as earlier alleged. These comments seem to concede that the written description and enablement requirements are met because there is substantial prior art that supplies the information needed by one of ordinary skill in the art to practice the invention. Of course, some experimentation may be needed, but persons of skill in the relevant art, such as the authors of the publications cited in the prosecution of this patent application, demonstrates that the burden of experimentation is not undue. In view of the concessions of the Office Action concerning the availability of relevant information, Applicants respectfully request reconsideration of both prongs of the rejection pursuant to 35 USC 112, first paragraph and the withdrawal of that rejection.

Claims 1-5 were rejected as unpatentable over two non-patent publications, characterized by the Examiner as Huizenga_1 and Huizenga_2. This rejection is respectfully traversed.

It is fundamental that to establish obviousness of any claim presented for examination, two requirements must be met. First, all of the elements of the invention as defined by the claim must be shown to be present in the prior art. Second, if it can be shown that all of the elements of the claimed invention are present in the prior art, then it must be shown that the prior art provides motivation for combining those elements in the way those elements are combined in the invention. Here, the rejection with regard to claim 1, the only pending independent claim, fails the first requirement for establishing *prima facie* obviousness so that the second requirement need not be discussed.

Both of Huizenga_1 and Huizenga_2 are directed to determining the thermal comfort of a human being. Neither publication includes any information for, nor any suggestion for, designing either textiles or clothing or determining how to do so based upon thermal comfort of a human being. Rather, both of the publications are directed to merely taking into account, in a very coarse way, the insulating effect if a human is clothed and located various environments. Huizenga_2 particularly is concerned with determining the comfort of the human who is in proximity to a window.

The Examiner acknowledged that Huizenga_1 does not even produce a visual image of the structural design of an article of clothing. Rather, reliance is placed upon Huizenga_2 and its Figure 8 as supplying that part of the claimed invention. Even that reliance is not consistent

with the language or intent of claim 1. According to the Office Action at page 6, the "structure of clothes is included in the calculation of this temperature data" that is used to produce an image of a person shown in Figure 8 of Huizenga_2. That image apparently shows different temperatures of different body parts of a person. The person is clothed, but what those clothes are, other than some kind of generalized thermal insulator, as referred to in Huizenga_1, is not described anywhere in either Huizenga_1 or Huizenga_2. What Huizenga_2 actually states is that the "model can predict, for example, that the right arm near the window in Figure 8 is cold compared to the rest of the body. ...The clothing model includes including heat and moisture transfer." There simply is no information in either of the two Huizenga publications concerning particular structure of clothing. There is not even incidental information or anything vaguely related to the design of particular articles of clothing or of textiles, relating to thermal characteristics and the intertwined physiological experience of the wearer of the clothes.

Because important elements of claim 1 are entirely missing from both of the publications cited in the prior art rejection, *prima facie* obviousness cannot have been established with regard to claim 1 nor any of its dependent claims, claims 2-5. For that reason, upon reconsideration, the prior art rejection must be withdrawn.

A favorable action with regard to all of claims 1-7 now pending is earnestly solicited.

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